MARSHALL STAR

Marshall Space Flight Center — Aug. 17, 2000

'We bring people to space — We bring space to people'

All-hands meeting

Center Director emphasizes Marshall's values

by Debra Valine

At Tuesday's all-hands meeting, Center Director Art Stephenson used NASA missions — from upgrading the Space Shuttles to assembling and conducting experiments on the International Space Station, to advanced launch systems development — to illustrate Marshall's involvement in these missions and reiterate that Marshall's core values will help meet the challenges ahead.

"It is a very exciting time at Marshall because we are involved in all of these missions," said Stephenson during the Morris Auditorium session with employees.

The successful accomplishment of these missions, he said, requires that we embrace Marshall's core values: people, customers, innovation, teamwork and excellence. And at the center of all of it is safety.

"Everything we do needs to address safety," Stephenson said. "I would hope that every one of you knows that if you see an unsafe or unhealthy situation, you have the authority to stop that operation."

"The lines of communication are open all the way up to me," he stressed. If you have a real safety issue, raise it to your management. If it is still not being addressed in your opinion, send me an e-mail. I am not looking for names. But I want to know about

*See **All-hands meeting** on page 3*

Photo by Danny Reeves, NASA/Marshall Space Flight Center

Center Director Art Stephenson speaks to employees Tuesday in Morris Auditorium during the all-hands meeting.

NASA plans to send rover twins to Mars in 2003

The traffic on Mars is expected to double in the near future.

NASA last Thursday announced plans to launch two large scientific rovers to the red planet in 2003, rather than the original plan for just one, said Dr. Ed Weiler, associate administrator for Space Science at NASA Headquarters in Washington, D.C.

Both Mars rovers currently are planned for launch on Delta II rockets from Cape Canaveral Air Force Station in Florida. The first mission is targeted for May 22, with the second launch slated for June 4. After a seven-and-a-half month cruise, the first rover should enter Mars' atmosphere Jan. 2, 2004, with the second rover bouncing to a stop on the Martian surface Jan. 20.

The rovers will be exact duplicates, but that's where the similarities end. Relatives of the highly successful 1997 Sojourner rover, these 300-pound mobile laboratories may look and act alike, but they're going to decidedly different locations.

"For the past few weeks, NASA has been studying a two-lander option," said Scott Hubbard, Mars Program director at NASA Headquarters. "The scientific appeal of using the excellent launch opportunity in 2003 for two missions was weighed carefully against the resource requirements and schedule constraints. Our teams concluded that we can successfully develop and launch these identical packages to the red planet," continued Hubbard. "We also determined that, in addition to the prospect of doubling our scientific return, this two-pronged approach adds resiliency and robustness to our exploration program."

The landing sites have yet to be selected.

During the next two to three years, engineers and scientists will conduct an intensive search for potential touchdown sites.

Using the flood of data still coming in from Mars Global Surveyor, and that expected starting in 2002 from the Mars 2001 Orbiter, scientists will search for compelling landing zones with the fewest hazards and select the best candidates.

"Safety Looks Good on You!"
— Safety slogan submitted by
Michael McLean, PS31

Women's Equality Day

Marshall women to be recognized as outstanding achievers

Three Marshall employees will be honored at the annual Women's Equality Day program at 10 a.m. Aug. 28 at Bob Jones Auditorium in the Sparkman Center on Redstone Arsenal. Everyone is invited.

Davis

Wales

Partain

Dr. Jan Davis, deputy director of Marshall's Flight Projects Directorate; May Wales, ombudsman in the Center Operations Directorate; and Beth Partain, executive support assistant in the Office of the Director will be recognized as Outstanding Women Achievers, along with women from other federal agencies.

Nominations were solicited and received from across the Marshall Center. They were ranked on accomplishments during their federal careers; success of job performance and increasing responsibilities; significant accomplishments in the public sector or community interests; awards; educational level; evidence of initiative; sound judgment; leadership; mentoring; self-development; and ability to work well with others. A panel of their peers individually ranked the award winners.

Iris Bulls, principal deputy for the assistant secretary of the Army, will speak. She acts for and assists the assistant secretary of the U.S. Army in various programs. These programs include force structure requirements and management; force operational readiness, national guard and Army Reserve affairs; personnel procurement and recruiting; labor management relations; equal employment opportunity; education and individual and unit training; and mobilization.

Women's Equality Day Aug. 26 was established in 1971 to commemorate the 1920 passage of the 19th Amendment to the Constitution, granting women the right to vote. This was the culmination of a massive, peaceful civil rights movement by women that had its formal beginnings in 1848 at the world's first women's rights convention in Seneca Falls, N.Y. The observance of Women's Equality Day also calls attention to women's continuing efforts toward equality.

Photo by Emmett Given, NASA/Marshall Space Flight Center

George Reese visits Marshall

George Reese, left, NASA's associate administrator for equal opportunity programs, greets Dr. Bruce Vu, a participant in the NASA Administrator's Fellowship Program. Vu works in the Subsystem and Component Development Department of the Space Transportation Directorate. During a visit to Marshall last Thursday, Reese received the Center overview and met with special emphasis advisory groups.

All-hands meeting

Continued from page 1

unsafe situations so they are addressed properly."

Stephenson said that over the last three years, lost-time accidents appear to be on the rise. In 1998, the rate per 200,000 hours worked was 0.22. That is about the NASA average. In 1999, the rate was 0.26. So far this year, the rate is 0.37. "These numbers bother me," he said. "Maybe what has happened is we have a higher reporting rate. People are more sensitive about safety and are trying to do the right thing by reporting incidents."

PEOPLE

The Center director said hiring new people is helping alleviate work force stress.

"We have made 182 offers, of which 161 have been accepted. So far, we have brought 102 on board.

"We will continue to hire up to the level NASA will allow us to have. We also are looking at our contractor support. I think we will have to hire more support contractors as our workload increases over the next few years."

The number of calls to the Employee Assistance Program (EAP) has dropped since we started hiring in January — a good indicator that workforce stress is reduced.

Term employees — who help to meet the work force requirements — have asked why they can't apply for internal positions at Marshall, Stephenson said. Term employees come on board for a specific amount of time. When the term is up, that is the end of the agreement. The policy says that terms cannot apply for positions internal to NASA, but they can apply for positions that are open for external hire. "We have made recent offers for permanent positions to terms when they have successfully competed," Stephenson said.

An important aspect of working with people is communication, he said. "I have been enjoying the impromptu meetings I have been having with people. "These meetings help me get a better understanding of what is going on out there, and gives the group an opportunity to ask me questions.

"I also have skip-level luncheons with about 15 people once a month, and we talk about what is going on at the Center, and what else we can do. Very real issues come out of those luncheons."

To help communication between project managers, the Systems Management Office has developed a database to help manage projects, Stephenson noted. "Project Management Forums" are in place to help train project managers. For information on these tools, call 544-1926.

The Engineering Directorate has a "Technical Exchange Forum" in which it brings in a group of experts and lets them look at an aspect of a project. To take advantage of this forum to review your project, call Jim Kennedy, Engineering Directorate director, at 544-1000 or Paul Munafo, deputy manager of the Materials Processes and Manufacturing Department, at 544-2566.

INNOVATION

Everything we do ties back to innovation, Stephenson said. "We need more technology development. I support a significant increase in the Center Director's Discretionary Fund. This could result in technology that could make a big difference.

"ISO processes define our business," Stephenson said. "The great thing about ISO is that it establishes a point of departure. If your organization's ISO processes are not where they need to be, look at them and change them if necessary. The audit teams will criticize us for not following our processes, but they do not keep us from improving our processes. Improved processes reduce the workload for our people."

The director noted that in the last three years, the Technology Transfer Department has set records with more than 300 new technologies, 70 patent applications and 18 license agreements. NASA uses these technologies to improve life on Earth as well as explore space.

Examples include video stabilization technology (VISAR) and a selectively lockable knee brace. VISAR — software that stabilizes camera motion and produces clearer images — was used to investigate the bombing at the 1996 Atlanta Olympics, and also has other widespread law enforcement applications. The selectively lockable knee brace — a spinoff from a Space Transportation project involving thrust vector control — locks in place when weight is placed on a patient's heel. Once the weight is lifted, the brace unlocks and allows it to swing.

Marshall receives royalties from these technologies. NASA inventors can receive up to $150,000 a year for their inventions — a great incentive to apply for patents.

CUSTOMERS

"I think we are doing a great job with our attitude with customers," Stephenson said. "Keep up the good work. I think we are making great strides outside of Marshall; that we understand what our customers need for support.

"We are going to be challenged to support Johnson Space Center in their effort to build the Space Station. But then we want to come back to Johnson Space Center and say support us on the Space Launch Initiative. We need to learn to lead as well as follow when we partner.

"I think we are moving in the right direction."

The Space Launch Initiative is ultimately a $1.5 billion a year program that is the first step in getting where we want to go in space transportation, Stephenson said. "We have the first-generation reusable Shuttle that we want to upgrade to be more reliable and operate less expensively. Second-generation may be an upgraded Shuttle or a new launch vehicle. The goal is to operate at a lower cost and at a reduced risk factor. In 40 years or so, our vision is to be flying our space vehicles like airplanes."

"With the Space Launch Initiative, we're working essentially with every Center across NASA, DoD and probably the Energy Department," said Stephenson.

*See **All-hands** on page 6*

Marshall marks 40th anniversary

Center has historic role in Space Shuttle

This is the eighth in a series of historical articles the Marshall Star will publish this summer on the history of the Marshall Center.

by Mike Wright

On Jan. 5, 1972, President Nixon announced plans to develop the Space Shuttle for routine access to space. As part of that program, Marshall designed the Shuttle's main engines, its solid rocket boosters and its external tank, as well as a variety of scientific payloads.

Marshall also was responsible for Spacelab, a versatile laboratory carried within the Shuttle's cargo bay. Other Center assignments included the upper stage boosters that would lift Shuttle payloads into higher orbits and on interplanetary voyages. One of Marshall's prime responsibilities included developing the Hubble Space Telescope, an optical observatory that is returning unprecedented views of the universe.

The first Space Shuttle main engine was test fired in 1975, followed by the first test firing of its solid rocket motor in 1977. That same year, tests on the huge external tank began at the Marshall Center.

In March 1978, throngs of employees and citizens greeted the Orbiter Enterprise upon its arrival at the Marshall Center for testing. The orbiter was hoisted into a modified Dynamic Test Stand originally built for the Saturn V. It was then mated to an external tank and subjected to vibration frequencies comparable to those expected during launch and ascent.

April 12, 1981, marked a new era is the history of space flight. The world's first reusable space vehicle, powered by Marshall-developed propulsion systems, was thrust into orbit with two astronauts aboard. This new chapter is the history of the Center would feature Marshall at the forefront of the nation's space exploration efforts.

The writer is the Marshall Center historian.

40th Anniversary Calendar of Events

Sept. 19 — Showing of George C. Marshall documentary

Sept. 20 — Showing of Marshall-produced 40th anniversary video

Sept. 21 — Daylong celebration of 40th anniversary in the 4200 complex

Countdown to Safety Bowl

Marshall's Safety Bowl begins with the Sweet 16 round Aug. 30 and culminates with the champi onship on Safety Day, Oct. 25. Teams from each directorate will compete. For more information, call Irene Taylor at 544-2051.

Sample Questions

1. We are taught at an early age to look both ways before crossing the street, yet each year there are numerous pedestrian fatalities. What is the estimated number of pedestrian deaths per year?

a) 200
b) 1,200
c) 3,200
d) 5,900

2. Stroke is one of the most preventable of all life-threatening health problems. The "Stroke Belt" consists of 12 contiguous states and the District of Columbia, which have stroke death rates that are consistently more than 10 percent higher than the rest of the country. Name one of the states in the Stroke Belt.

3. When temperatures reach 93 degrees Fahrenheit, even with a window cracked, the temperature inside a car can reach 125 degrees F within what amount of time?

a) 20 minutes
b) 40 minutes
c) 1 hour
d) 2 hours

4. According to "Safety and the Supervisor," the number of worker's compensation claims filed by drug users is:

a) Fewer than for the general population
b) About the same as for non-users
c) Enough to qualify for a "Frivolous Filers" list
d) More than twice as many as non-users

5. Annually in the United States, approximately 1.5 million women are raped and/or physically assaulted by an intimate partner. Domestic violence:

a) Affects the individual, family, friends and work place
b) Causes employees to miss approximately 175,000 days per year of paid work
c) Results in hundreds of millions of dollars in health care costs
d) Resulted in approximately 1,800 murders in 1996
e) All of the above

*See **Answers** on page 7*

Space research may help reduce dependency on petroleum and 'leapfrog' to fuel of the future

by Tracy McMahan

Are cheaper gasoline and other forms of energy in America's future? NASA and industry are funding research to study zeolites — crystals with the potential to reduce the cost and pollution associated with producing gasoline and other petroleum products.

Zeolites have a rigid crystal structure with a network of interconnected tunnels and cages, similar to a honeycomb. Virtually all the world's gasoline is produced using zeolites. Industry also uses natural and synthetic zeolites to make numerous products: In cat litter, zeolites absorb odors; in water filters, zeolites remove impurities; in laundry detergents, they soften hard water by removing calcium; and in cars, zeolites act as catalytic converters, reducing pollutants.

Industry wants to improve zeolite crystals so that more gasoline can be produced from a barrel of oil, making the industry more efficient. To facilitate this goal, NASA has helped industry fly zeolite crystals on three NASA Space Shuttle missions since 1992. They are scheduled to be grown on a Shuttle mission again next year, and on the International Space Station — the first permanent research laboratory in space.

To learn more about these useful crystals, researchers from industry and academia are conducting experiments through NASA's Space Product Development Program, managed at the Marshall Center. This program helps industry take advantage of space and microgravity — the near-weightless environment inside an orbiting spacecraft — to create new products, improve existing ones and find solutions to questions or problems.

Stacco conducts research on board the Space Shuttle.

"Our experiments in space have shown that larger and better quality crystals can be grown in microgravity," said former Space Shuttle crewmember Dr. Albert Sacco Jr., director of the Center for Advanced Microgravity Materials Processing — a NASA Commercial Space Center at Northeastern University in Boston. This center is one of 16 NASA Commercial Space Centers, each focusing on a different area of research of interest to industry.

"Data from space experiments are helping us grow better zeolite crystals on Earth," said Sacco. "Industry wants to fine-tune the structure of zeolites to get more gasoline out of a barrel of oil during the refining process. An increase of 1 percent in the amount of gasoline from a barrel of oil is equal to an approximately $400 million reduction in the balance of payments in America. Theoretically, this could lead to less dependence on foreign oil."

The problem with zeolite crystals produced on Earth is that they are extremely small — roughly 2 to 8 microns, about the size of microscopic bacteria. To better define the structures of zeolites, scientists need to grow crystals that are 200 to 1000 times larger.

"In microgravity, materials come together more slowly, allowing zeolite crystals to form larger and with better order," said Sacco, who worked as a payload specialist and grew zeolites aboard the Space Shuttle on the STS-73 mission in 1995. "These larger, more perfectly formed space-grown crystals tell us more about the way the crystal is made and how it works."

NASA's Commercial Space Center at Northeastern University is working both to help industry improve petroleum fuel refining and to develop new fuels that are cheaper and cleaner. Hydrogen is one of the candidate fuels being investigated. Companies have designed engines that burn hydrogen, but scientists must find a way to store and transport it safely and easily.

"Zeolites can store quite a bit of hydrogen, but we need to find out how to store enough hydrogen so that it can be used in a car fuel tank at normal operating temperatures and pressures," said Sacco. "One way to do this would be to make zeolites or zeo-type materials that can store hydrogen much like a liquid in a bottle."

Hydrogen is the most abundant element in the universe, and it's pollution free. Sacco predicts hydrogen fuel will be a "leapfrog technology" that changes the way we live — much like the revolutionary change when the world moved from coal to petroleum as its primary fuel. "If we can find a way to store hydrogen safely and inexpensively, in 10 to 15 years, you'll see America turning from gasoline to hydrogen as the main fuel source," said Sacco.

Through Commercial Space Centers like ours, NASA will help industry take advantage of a national resource — the International Space Station — the most sophisticated laboratory to ever be put in orbit," Sacco said.

The writer, employed by ASRI, supports the Media Relations Department.

All-hands meeting

Continued from page 3

TEAMWORK

Teaming is essential in all that we do, Stephenson emphasized. A recent example of teamwork is the establishment of the National Space Science and Technology Center. "We signed the agreement last week with the governor of Alabama, and we are moving some of our people into a building across from the University of Alabama in Huntsville," Stephenson said.

Six Alabama universities joined with Marshall in this endeavor. Initially the center will focus on earth science, space science and information technology. In the future, core mission areas will include optics and energy, material science, biotechnology and propulsion physics.

EXCELLENCE

"You cannot achieve excellence without the other values," Stephenson said. "To achieve excellence, we need training and education. These programs are seeing increased funding at Marshall."

There will be a significant increase in part-time studies, he said. Full-time studies offer a great opportunity to attend graduate school. Employees are encouraged to accept rotational assignments, attend conferences or access training courses from their desktop computer.

NASA INTEGRATED ACTION TEAM

Center Deputy Director Carolyn Griner also spoke to employees at the all-hands. She is leading the Agency level team looking at NASA Actions as a result of recent failures: the Mars program assessment; faster, better, cheaper; Shuttle wiring problems.

"When you look at those things happening close together, you wonder what is going on," Griner said. "We were tasked with looking at all these findings and looking at it from a systems perspective to increase our probabilities of success.

The team determined strategies to ensure success. These include:

- Developing and supporting exceptional people and teams.
- Ensuring the health and safety of people.
- Increasing the investment we are making in everyone — training will increase significantly at the Agency level.
- Strengthening engineering capability at NASA by bringing in new technology.
- Understanding and controlling risk.
- Improving communication. Looking at how we can do a better job of gathering information and making it available to employees.

ENGINEERING INSIGHT

Stephenson said the level of insight is contingent on defining an acceptable risk. "We have been wrestling with the right level of insight on our projects," he said. "We cannot go back to complete oversight, but we also cannot stay out of the loop completely. We need to adjust our level of insight based on each project's risk assessment."

To make this work, Stephenson suggested projects be broken down into a lot of sub-elements. He said we will look at the project and ask the following questions: What's the level of risk? How experienced is the team? How well is the process designed? For more information on this process, call Bill Kilpatrick, deputy director of the Engineering Directorate, at 544-1001.

"The right answers to these questions will determine how we staff our projects," Stephenson said. "This is how we will deploy the work force."

The writer, employed by ASRI, is the Marshall Star editor.

Slips, trips, falls can be avoided

We all have watched television and laughed at people slipping on a banana peel, tripping while walking across a crowded room or falling while dancing.

We need to understand that these "accidents" on television are staged acts for our entertainment. Real accidents in real life can cause serious injury, and in some cases death.

Slips, trips and falls are the No. 1 cause of work-related accidents, and contribute to the number of lost-time accidents. There have been six reported cases of slips, trips and falls at Marshall this fiscal year. We can help eliminate these accidents by increasing our awareness of the common factors that create them by following these safety tips.

- Be aware of areas that appear to be wet or oily.
- Stop and clean up spills, or report it instead of leaving it for someone else to find.
- Watch where you are walking and walk at a normal pace. Don't get in a hurry.
- Keep your work area and walk aisles free of debris and practice good housekeeping.
- If you are working on an elevated work surface be sure proper fall protection is implemented. OSHA considers 6 feet above the lower/normal work area to be elevated. Include Personal Protective Equipment.

Be cognizant of your health and that of your co-workers. Sore muscles, cramps, vision and inner ear problems can lead to accidents.

Answers

Continued from page 4

1. d) 5,900 deaths and another 84,000 non-fatal pedestrian injuries, according to the National Safety Council.

2. Alabama. Other states are Virginia, North Carolina, South Carolina, Georgia, Florida, Mississippi, Louisiana, Arkansas, Tennessee, Kentucky and Indiana, according to the National Stroke Association.

3. a) 20 minutes. In 40 minutes, the temperature can reach 140 degrees F. In these extreme conditions, children can suffer permanent disability or death in a matter of minutes.

4. d) More than twice as many as non-users

5. e) All of the above

Sports

Rowing Club — The Rocket City Rowing Club's adult rowing clinic will be held from 5:30-7 p.m. Tuesdays, Sept. 6-Oct. 4. Learn basic rowing technique, along with equipment and basic lingo. Cost is $90. For more information, call Halley Little at (256) 539-8841.

Men's Tennis Tournament — The MARS Tennis Club will host a "Men's Open Doubles Tournament" Aug. 19, beginning at 8:30 a.m., with warm-up starting at 8 a.m. Open Doubles means each male member can invite a guest as their partner, and pay a guest fee of $3. To participate, call Bill Boglio at 544-3806.

NASA Ski Week — The 10th annual NASA Ski Week will be hosted at Snowmass, Colo., Jan. 20-27, 2001. For more information, call 1-233-0705, or send e-mail to: Thomas.S.Dollman@msfc.nasa.gov

MARS Golf — A two-person best score tournament, 7:30 a.m., Sept. 16 at Point Mallard. Deadline to register is Sept. 8. For more information or to enter a tournament, call Lee Foster at 544-1589. Entry fees are $5.

Job Opportunities

Reassignment Bulletin 00-32-CP, Program Analyst, GS-343-12 (3 vacancies), Science Directorate, Business Management Office. Closes Aug. 18.

Reassignment Bulletin 00-33-CP, AST, Technical Management, GS-801-13, Science Directorate, Business Management Office. Closes Aug. 18.

CPP 00-98-RE, Amendment 2, Supv, AST, Aerospace Vehicle Propulsion Systems, GS-861-15, Space Transportation Directorate, Vehicle & Systems Development Department, Vehicle Subsystems Engineering Group. Closes Aug. 18.

CPP 00-106-DS, Management Support Assistant (OA), Center Operations Directorate, Information Services Department. Closes Aug. 25.

Center Announcements

- ***AIAA Dinner —*** Homer Hickam will speak to the American Institute of Aeronautics and Astronautics (AIAA), Alabama/Mississippi Section on Aug. 24 at the Redstone Arsenal Officers' and Civilians' Club. Social will be at 6:30 p.m., dinner at 7 p.m. and program at 7:30 p.m. Cost is $16 per person. For reservations, call Alan Lowrey at 461-4398 or send an e-mail to: gordon.lowrey@ums.msfc.nasa.gov
- ***Shuttle Buddies —*** The Shuttle Buddies will meet for breakfast at 9 a.m. Aug. 28 at Mullins Restaurant on Andrew Jackson Way. For more information, call Deemer Self at 881-7757 or Gail Wynn at 852-8189.
- ***NARFE Meets —*** The National Association of Retired Federal Employees-Decatur/Morgan Chapter 736 will meet at 11 a.m., Aug. 23 at Piccadilly's in Decatur. All retired federal employees are welcome. For more information, call Marty Eddy at 773-4826.
- ***Lunch Time Prayer —*** Lunch time prayer will be from noon-12:30 p.m. every Tuesday and Thursday in Bldg. 4200, room 432. For more information, call Johnnie Wilson at 544-1007 or send an e-mail to: johnnie.wilson@msfc.nasa.gov
- ***Center History Video —*** As part of the Marshall Center's plans to mark its 40th anniversary, work will begin soon on a video presentation depicting various highlights in the Center's 40-year history. The production will include actors drawn from the Marshall team, their children and retirees. Thirty-five to 50 adults are required for the production, some of whom will be required to speak on camera. It also will require about 20 children, who are 10 years old or older. Interested participants should e-mail Larry Fine at: larry.fine@msfc.nasa.gov.
- ***ASEM Meets —*** Managers and aspiring managers are invited to attend the American Society of Engineering Managers (ASEM) meeting at noon Aug. 29 at the Redstone Officers' and Civilians' Club. The Huntsville Chapter of ASEM is under formation and is enrolling charter members. For membership and meeting information, call Pamela Takada at 544-3645.
- ***MOO Meets —*** The Management Operations Office (MOO) retirees will meet for breakfast/lunch at 10 a.m. Aug. 24 at the Cracker Barrel Restaurant in Madison. For more information, call 539-0042.
- ***History Chats —*** The first in a series of history chats to commemorate Marshall's 40th anniversary will be from 11-11:30 a.m. Friday in the Heritage Gallery. Ed Buckbee, former head of the U.S. Space & Rocket Center and assistant to the Marshall Public Affairs Officer from 1961-1968 will speak.

Obituaries

Dolan, Linda C., 59, of Huntsville, died Aug. 13. She retired from Marshall in 1997 where she worked as a management support officer. She is survived by her husband, Fred J. Dolan.

Stone, Donald, 68, of Huntsville, died July 22. He retired from Marshall in 1989 where he worked as an electronics engineer. He is survived by his wife, Josephine J. Stone.

Holland, Ben F., 47, of Denison, Texas, died July 23. He retired from Marshall in May where he worked as a quality assurance specialist. He is survived by his wife, Lynn B. Holland.

Employee Ads

Miscellaneous

★ Two Seiberling I, P215/75R15M/S, whitewall tires, approximately 45,000 miles tread left. $45 for both. 883-5396
★ Longaberger barn raising basket, includes protector, liner and pewter tie-on, $150. 837-8221
★ Honda riding lawn mower, Harmony 1011, 25 hrs. use, $1,400. 883-5104
★ Compact refrigerator, 1.8 cu. ft., one year old, $50. 882-1382
★ Women's scuba dive gear, includes wet suit, BCD, gauges, etc., $75. 551-0467
★ Sears Kenmore full-size microwave oven, 1.45 cu. ft., $75; Lawnmower, push, 3.5HP, B&S engine, $50. 881-6040
★ Eight jalouise windows, 36" wide x 90" high, $35 ea., $220 for all; Igloo dog house, $25. 837-0625
★ Sewing machine w/cabinet, Elna SU air electronic, Swiss made, many different stitches, best offer. 971-0571
★ Kenmore washer, 70 series, heavy duty plus, $25. 772-5955
★ Dooney & Bourke purse, $70; matching wallet, $30; Honda 1000W lightweight generator, $699; Hummels, $95 and up. 881-7000
★ Computer Special AMD K6-2, 450mhz, 4.3GB hard drive, 32mb, 44X CD-ROM, 8mb video, 56k modem, 15" monitor, $650. 851-0704/694-0798
★ Heavy-duty Kitchen Aide washer/Sears dryer, sell as pair only, $150. 230-6846
★ Ten-speed bikes, $40 each; aquarium, $30; electric edger, $35; VCR, $25. 880-9754
★ The Phonics Game Jr., complete set, $75. 776-9165
★ Sony VA10 166MHz, 32MB, 4.3GB, 24x, K56 computer and monitor, $800. 722-9483
★ 1998 Yamaha V-Star 650 custom, 2100 miles, garage kept, lady owned, $4,000 firm. 776-2597 after 5 p.m./pager 512-3095
★ Trombone, good condition, $150. 233-3407
★ Contemporary dining table; smoke glass octagonal top, four burgundy/black chairs, $100. 881-6419
★ Soundtech speakers, pair, 250 watts, $500; channel powered mixer board, $125. 256-586-8433
★ Antique bed, $600; baby crib & other baby items, call for list. 837-6274/leave message
★ Grader blade, fits garden tractor w/sleeve hitch, $75 or trade for towable lawn aerator. 464-5819
★ 1987 Stratos bass boat, 19"3", 200 Mercury, 12/24 TM, 2 depth finders, $7,500 obo. 233-5032
★ Trombone, King 606, $475. 722-8583/leave message
★ Stainless steel sink w/three basins, garbage disposal separate, $25; surface unit, 4 unit, $25. 355-0348
★ 1987 Searay Seville, 19' cuddy cabin, 165HP I/O, EZ loader trailer, full canvas top, $6,300. 464-6933
★ Sofa and matching loveseat, teal, $300. 883-5168
★ Four tickets to Talladega Winston 500, Oct. 15, face value $240. 883-1874 after 5 p.m.
★ Air conditioner, large window unit, $200. 539-8976
★ Labrador puppies, sire-AKC field champion, wormed, first shots, blacks, yellows, CERF eyes, $350-600. 882-2579 after 6 p.m.
★ Yamaha Model 20 Clarinet w/case. 837-9479
★ Antique walnut "knee-hole" dresser w/round mirror; matching four-drawer chest; solid oak wash stand w/mirror, $200 each. 961-7700/day; 536-8692/night
★ Houston Rockets jerseys by Champion: Drexler #22/18-20, shorts/18-20; Barkley #4/18-20; Horry #25/14-16; Olajuwon, #34/10-12, shorts/6-8; $7 each item. 533-5942
★ 1986 Cris Craft Cruiser, 14' trailer, 260HP Mercury, ski equipment, many extras. 883-5574

Vehicles

★ 1991 Isuzu Rodeo, V-6, air, CD, 160K miles, auto, sun roof, $3,800. 518-9802
★ 1927 Phaeton T-Model, new battery, fan belt, exhaust pipe and muffler, $7,900. 764-2492 after 7 p.m.
★ 1997 Buick LeSabre Limited, 54K miles, one-owner, teal, extended warranty, $13,000. 353-5106
★ 1995 Chrysler Concord, gray, 76K miles, $8,300. 232-4338
★ 1994 Nissan Sentra, 96K miles, automatic, 4-door, am/fm tape, ac, pw/pl, $3,950. 464-0660
★ 1997 Ford Mustang, coupe, 6-cylinder, automatic, black/tan interior, 80K miles, $9,500. 256-753-2278
★ 1989 GMC S-15 Jimmy, 4WD, 4.3L, black/blue, 210K miles, $2,900 obo. 837-6517
★ 1999 Explorer Sport, white, CD, 2WD, automatic, 40K miles, warranty to 75K miles, $20,500. 828-9861
★ 1998 Ford Mustang GT convertible, red/black, air, cruise, tilt, alarm, am/fm/tape/CD, 5-speed, warranty, $20,500. 337-6181
★ 1996 Dodge Intrepid ES, V-6, 3.5L, 83K miles, metallic red, CD, keyless entry, alarm system, $9,600. 650-2179
★ 1986 Honda CRX.Si service manual, $10. 883-2948
★ 1990 Nissan truck, King-cab, 44,060 miles, 5-speed, 4-cylinder, a/c, am/fm cassette, bedliner, camper shell, $5,100. 539-7855
★ 1985 Mazda 626LX, 152K miles, PW/PDL, sunroof, runs great, engine smokes, good body, tires, & interior, $300. 883-9875
★ 1997 Honda Accord SE, 4-door, champagne, automatic, a/c, all-power, moon roof, alloy wheels, 55K miles, $14,500. 883-4276
★ 1972 GMC truck, 8-cylinder, 350, PB/PS, air, $1,500. 881-9421
★ 1977-1/2 Porche 924, silver, 4-speed, sun roof, 137K miles, new and extra parts, make offer. 828-6213

Free

★ Old maps and brochures, dating from 1960s to 1980s. 881-8648

Found

★ Key near Bldg. 4471. Call 544-4758 to identify.

Wanted

★ Chain link fence, 100' to 150'. 851-0704/694-0708
★ Baby crib, 2.5" or less between slats. 532-3129
★ 1994-1997 Honda Accord, Honda Civic, Mazda 626 or Toyota Camry, average or low miles, excellent condition. 883-2757

Carpool

★ Need 2 people for carpool from Albertville-Guntersville area, 7 to 3:30 p.m. 544-8010/544-2908

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